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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,383	02/21/2002	Bryan Bees	027478-0102	5011

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EXAMINER

SANDERS JR, JOHN R

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 03/12/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/078,383

Applicant(s)

BEES, BRYAN

Examiner

John R. Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Response to Arguments

2. Applicant's arguments, see Paper Nos. 5 and 7, filed 26 November and 10 December 2003, with respect to the rejection(s) of claim(s) 1-21 under § 102(e) and § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as follows.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the control circuit coupled to a display on which an image is displayed, and the effect the control circuit causes to the image based on the spatial displacement of the spectral filter.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. **Claims 1-8 and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by *Kerns, Jr.*, of record.**

7. Regarding Claims 1-4, *Kerns, Jr.* discloses a spectral filter, in the form of a contact lens, with a plurality of radial regions each having a different transmission characteristic with regard to the wavelength and intensity of the incident light (abstract). *Kerns, Jr.* does not expressly disclose a light source or a main objective. However, it is inherent for a contact lens (or a spectral filter) to receive light with a two-dimensional cross-sectional area incident upon its outer surface and this light inherently comes from a light source. The limitation of a "main objective" has a broad interpretation that can be read as anything past the filter that the modified light impinges upon, in this case, the eye under the contact lens.

8. Regarding Claims 5-8, *Kerns, Jr.* discloses filter regions designed to reduce UV and blue light intensity onto the retina. It is well known in the art (see cited art *Stephens et al.* '046 and *Johansen et al.* '748) that the range of the electromagnetic spectrum associated with UV and blue light has been implicated as a cause of macular degeneration, as well as other medical conditions. *Kerns, Jr.* discloses a filter absorbing portions of the light in different absorption regions, separated by flat absorption edges (FIGS. 5, 10).

9. Regarding Claims 10-13, *Kerns, Jr.* discloses filter regions in the center of the lens that reduce the blue light spectrum by 50% (FIG. 6). In embodiment variations, wavelengths of 400-

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500 nm are attenuated by 40-60% (FIGS. 8 and 9). *Kerns, Jr.* also discloses an outer region of the lens that is optically clear. See column 3, lines 8-37.

10. **Claims 1, 3, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,056,739 to *Klopotek*.**

11. Regarding Claims 1 and 3, *Klopotek* discloses an ophthalmic apparatus that profiles the intensity of an optical beam. The beam profiler consists of a filter **34** that separately modifies the intensity profile of different subbeam portions (col. 2, lines 20-40). Although the individual filter components **36** consist of predetermined patterns of transmissive and non-transmissive regions (col. 8, lines 57-63), the combined effect of the filter array creates an intensity profile for the resulting beam that does not eliminate the intensity of the beam for a specific subsection (FIGS. 7A-7D). *Klopotek* discloses light source **22** and a main objective **14** (FIG. 1).

12. Regarding Claim 21, *Klopotek* discloses a dynamic intensity-defining, flat-panel display, otherwise known in the art as an LCD (col. 11, lines 22-25).

13. Regarding Claim 22, *Klopotek* discloses a surgical microscope (col. 1, line 10 - col. 2, line 15).

Claim Rejections - 35 USC § 103

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15. **Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kerns, Jr.***

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16. Regarding Claim 9, *Kerns, Jr.* does not expressly disclose the blue light region being reduced by 90%. However, in column 6, lines 38-52, *Kerns, Jr.* discloses a wide range of transmission percentages for the range of 400-510 nm, indeed between 0 and 100%. It would have been obvious to one of ordinary skill in the art to reduce the transmission of blue light to 90% to further reduce the possible negative effects associated within that range of the spectrum.

17. Regarding Claim 14, *Kerns, Jr.* does not expressly disclose the filter to be moved into and out of the illuminating beam. However, contact lenses are inherently designed to be moved, manually, from contact with the eye. Merriam-Webster defines “mechanically” as “of or relating to manual operations.” Although the contact lens may be still impinged upon by illumination beam from a light source in the broadest interpretation (with no limits to the size of the beam), it has been removed from the “main objective” light path, rendering null its filtering function in the system. It would have been obvious to one of ordinary skill in the art to move a filter into and out of the illumination path to begin and end its filtering function, as in placing and removing the contact lens of *Kerns, Jr.* on and from the eye.

18. **Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Klopotek* in view of U.S. Patent No. 4,991,954 to *Akiyama*.**

19. *Klopotek* discloses the above limitations but does not disclose expressly the filter moved into and out of the illuminating beam or the filter adapted to be moved horizontally along its x, y plane. *Akiyama* teaches an ophthalmic device with a filter 102c that is moved into or removed from the optical axis 1a of the beam along its x, y plane (FIG. 13B) to change the intensity of the beam (col. 9, lines 54-57; col. 9, lines 13-23). It would have been obvious to one of ordinary

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skill in the art to dispose the filter of *Klopotek* to be movable in the manner of *Akiyama* in order to change the intensity profile of the beam or remove the filter from the beam entirely.

20. **Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Klopotek* in view of *Akiyama* as applied to claim 16 above, and further in view of U.S. Patent No. 6,297,912 to *Goto*.**

21. Regarding Claims 17 and 18, *Klopotek* discloses the above limitations but does not disclose expressly the filter movable in the direction of the beam. *Goto* teaches a zoom lens system wherein a low-pass filter is disposed to be movable along the optical axis (abstract). It would have been obvious to one of ordinary skill in the art to have the filter of *Klopotek* disposed in the manner of *Goto*, for at least the reasons specified in *Goto*: that a filter moving integrally with a lens in a magnification system will cause the change in the filter effect caused by a change in magnification relatively small (col. 2, line 51 - col. 3, line 9). *Klopotek* discloses laser surgical applications of the described filter. Laser surgery of the eye involves surgical microscopes and the magnification of incident laser light upon the cornea. Therefore *Klopotek* and *Goto* are analogous art with respect to the effects of magnification on filter effects.

22. Regarding Claim 19, a movable filter is inherently movable either electronically or manually.

23. **Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Klopotek* in view of *Dobrowolski et al.*, of record.**

24. *Klopotek* discloses the above limitations but do not expressly discloses having the x, y plane of the filter disposed non-normal to the beam. *Dobrowolski* teaches the use of filters at oblique angles to the beam axis used to filter the beam at predetermined wavelengths. It is also

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known in the art that changing the filter angle will alter the intensity transmittance properties of the filter, since the beam has to travel at an oblique angle through the filter media. It would have been obvious to one of ordinary skill in the art to have a filter, with the limitations of *Dobrowolski*, incorporated into the device of *Klopotek* and disposed at a non-normal orientation to the beam.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Sanders whose telephone number is (703) 305-4974. The examiner can normally be reached on M-F 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis W. Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


jrs


DENNIS W. RUHL
SUPERVISORY PATENT EXAMINER